



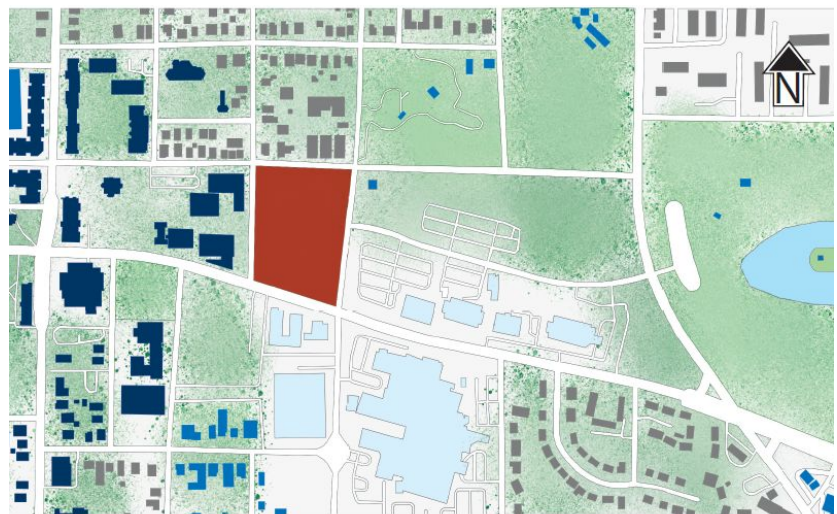
COMO COMMUNITY CO-OP

University of Missouri - Columbia

Mixed-Use Multifamily Building

Mizzou Ecospaces

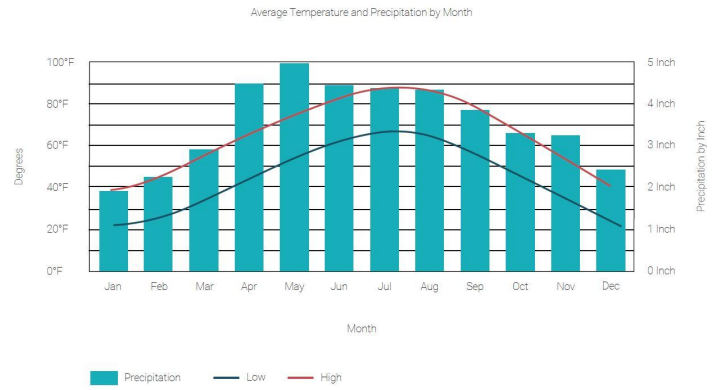
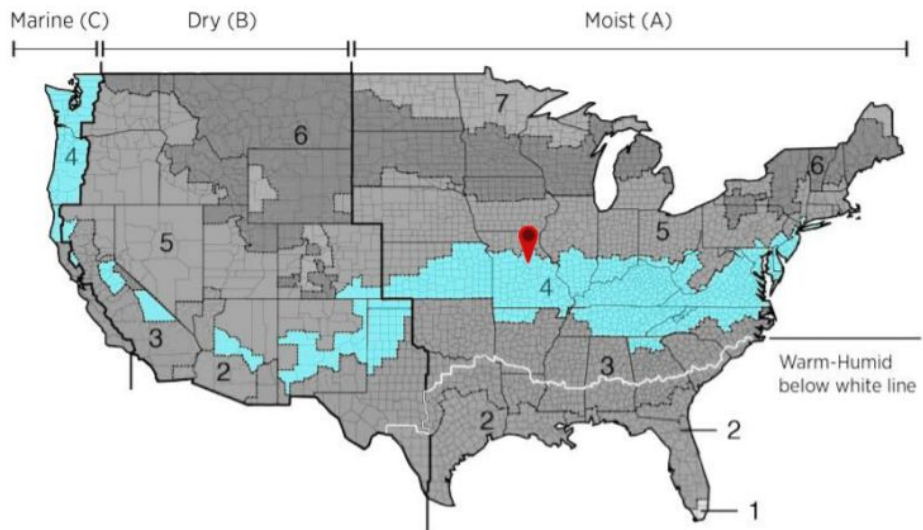
SITE AND CLIMATE



- KEY**
- BUILDING SITE
 - BUSINESS
 - RESIDENTIAL
 - HOSPITAL
 - COLLEGE

SITE ADDRESS
1511 East Broadway,
Columbia MO

Heating Degree Days: 4800
Cooling Degree Days: 1550



TARGET MARKET

Young adults and families in the Columbia Mo area, who need a flexible living environment for growing families and an affordable place to live

What is available in Columbia now...



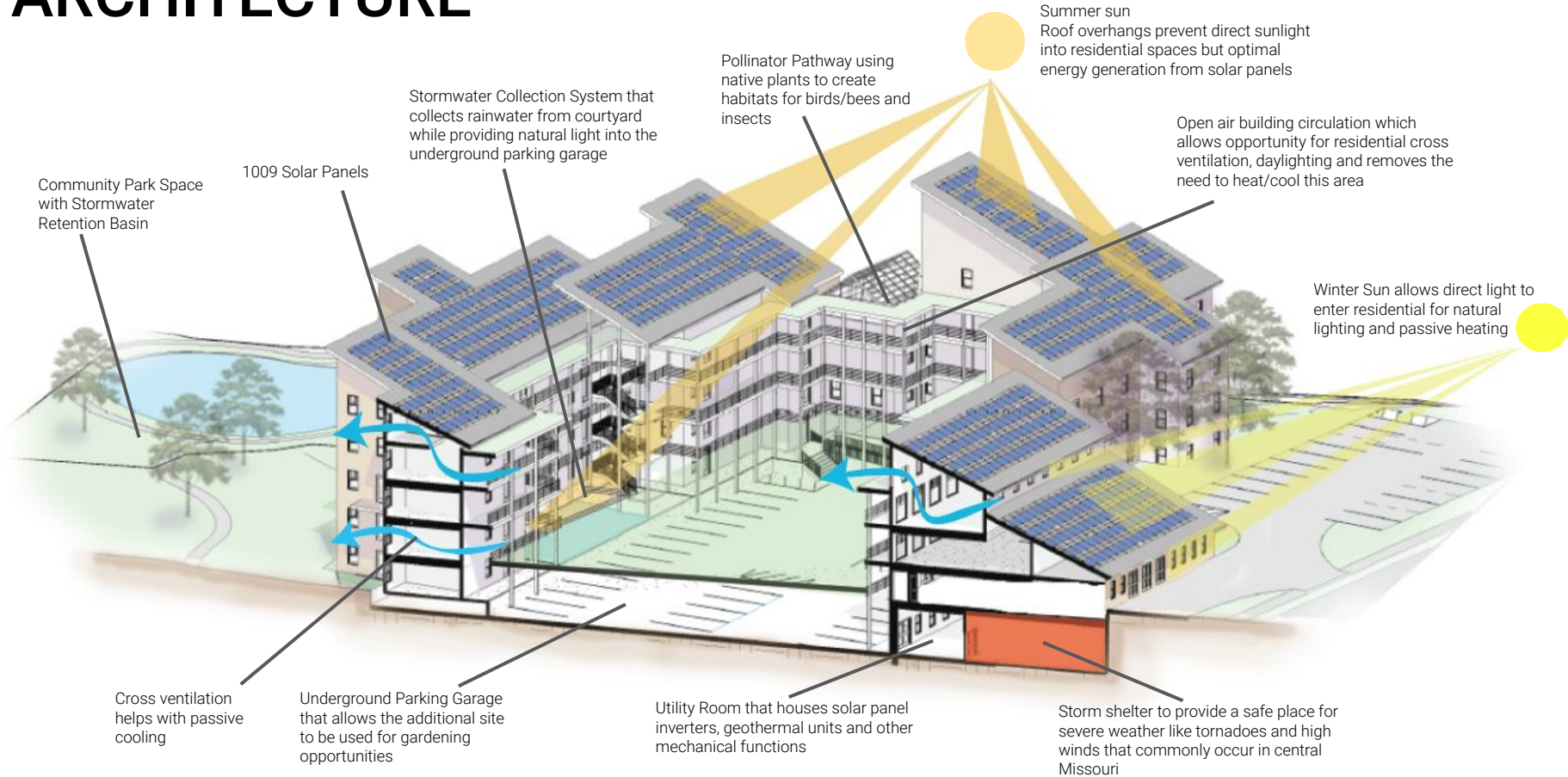
- Requires vehicle to get around in Columbia
- Little to no green space
- High utility and rental
- Standard interiors

Our Design ...

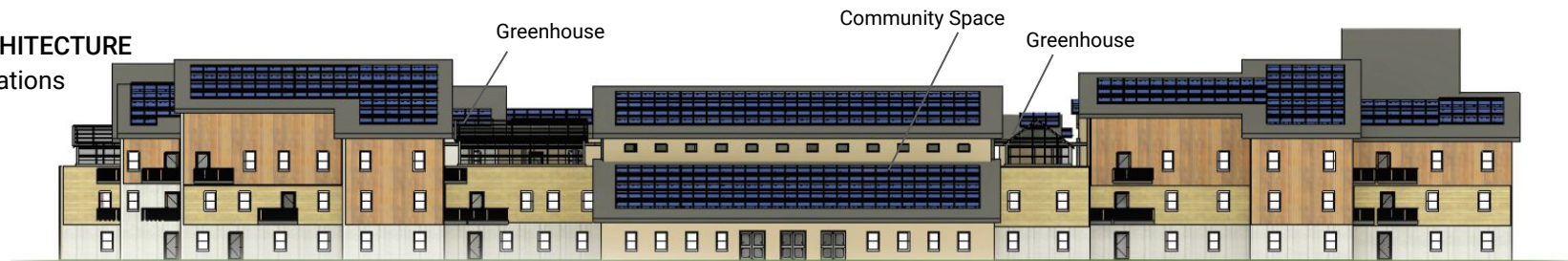


- Close to Downtown Columbia (public transportation and walkability)
- On site gardening = reduce food costs
- Energy efficient building = low/no utility bill
- Low rent cost
- Interior flexibility
- Interior comfort and quality

ARCHITECTURE



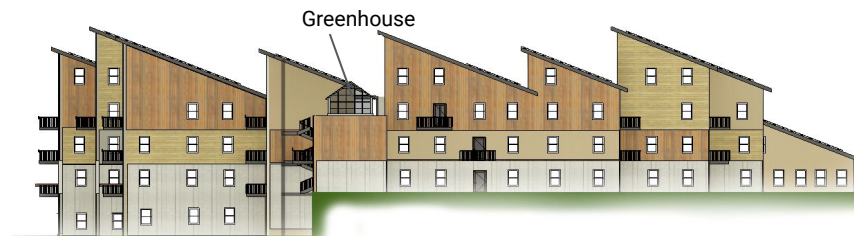
ARCHITECTURE Elevations



SOUTH



EAST



WEST



NORTH

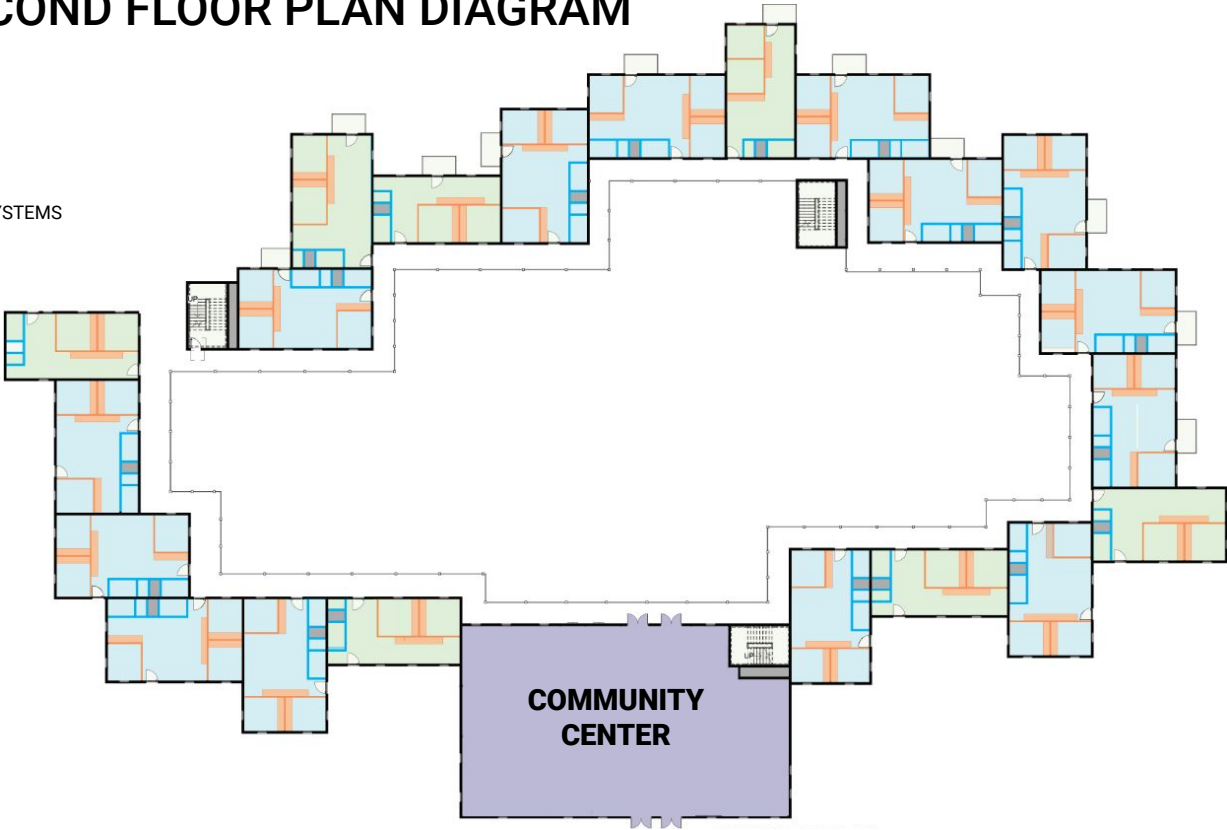
Different metal wall finishes to increase the feelings of ownership among residents

Residential Patios

MAIN AND SECOND FLOOR PLAN DIAGRAM

RESIDENTIAL SPACE KEY

- DIRTT WALL SYSTEMS
- PLUMBING WALLS
- MECHANICAL STORAGE SYSTEMS
- 3 BED/2 BATH UNIT
- 2 BED/1 BATH UNIT



ARCHITECTURE

Renderings

3 BEDROOM WITH LOFT FLOOR PLAN

3 Bedroom Lofted Unit Perspective



3rd Bedroom Loft Unit



Lofted Level



ARCHITECTURE

Renderings

2 BEDROOM FLOOR PLAN

2 Bedroom Unit Perspective



2 Bedroom Unit

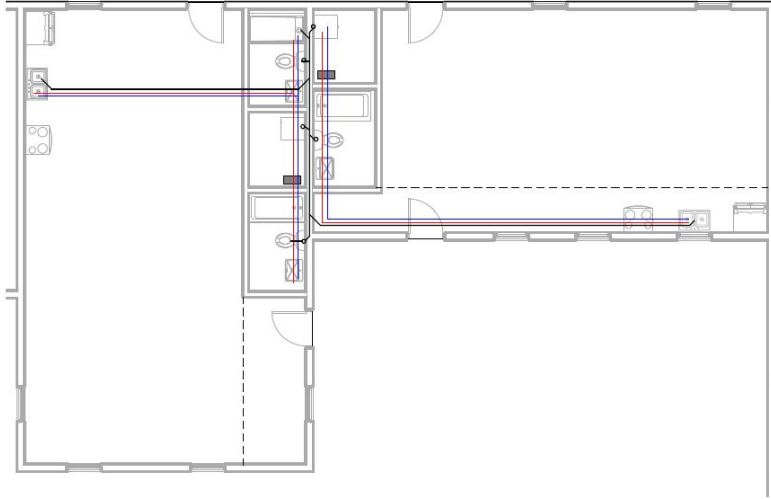


Modified 2 Bedroom to a 1 Bedroom



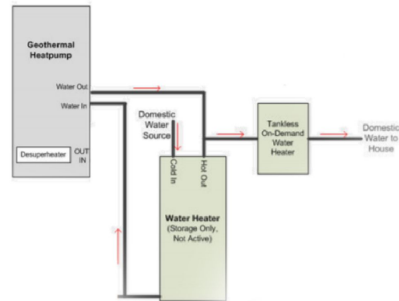
ENGINEERING

Plumbing

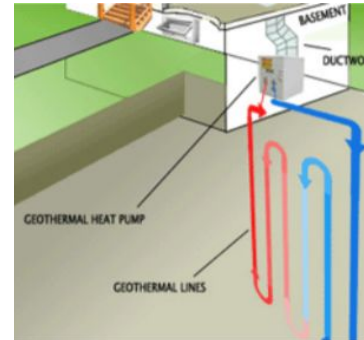
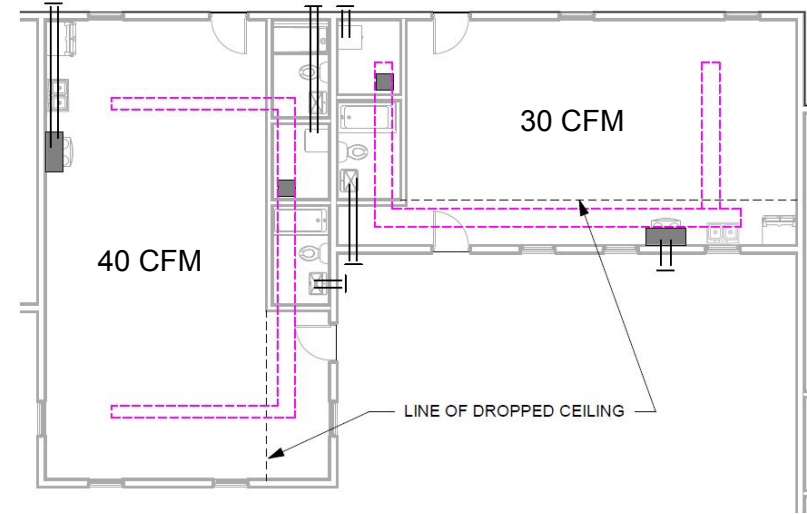


Bosch Tronic 6000c wh17
Tankless Water Heater

Geothermal Plumbing Diagram



HVAC



Energy Recovery Ventilator



Honeywell Energy Recovery
Ventilator VNT5070E 1000 ERV

MARKETING ANALYSIS

Flexible Units to Fit the Residents Needs

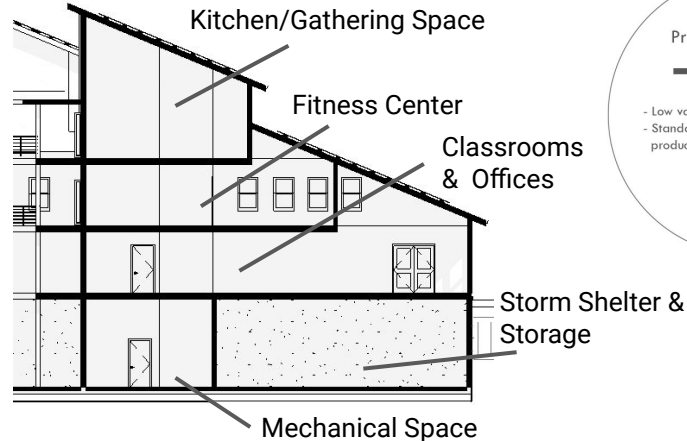


Greenhouse



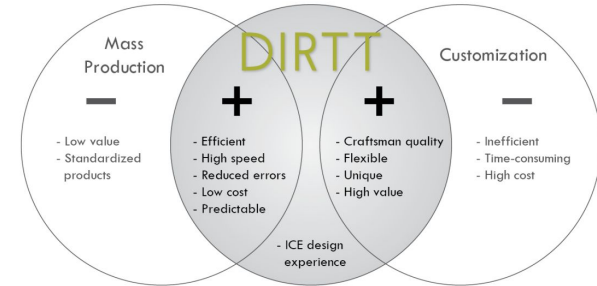
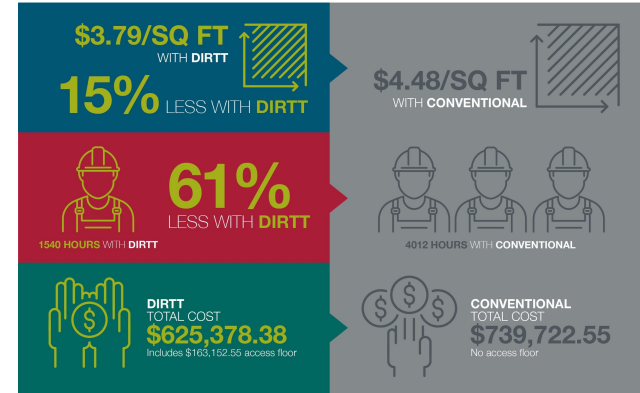
Direct Access to Green Space and Gardening Opportunities within a Community Environment

Commercial Spaces

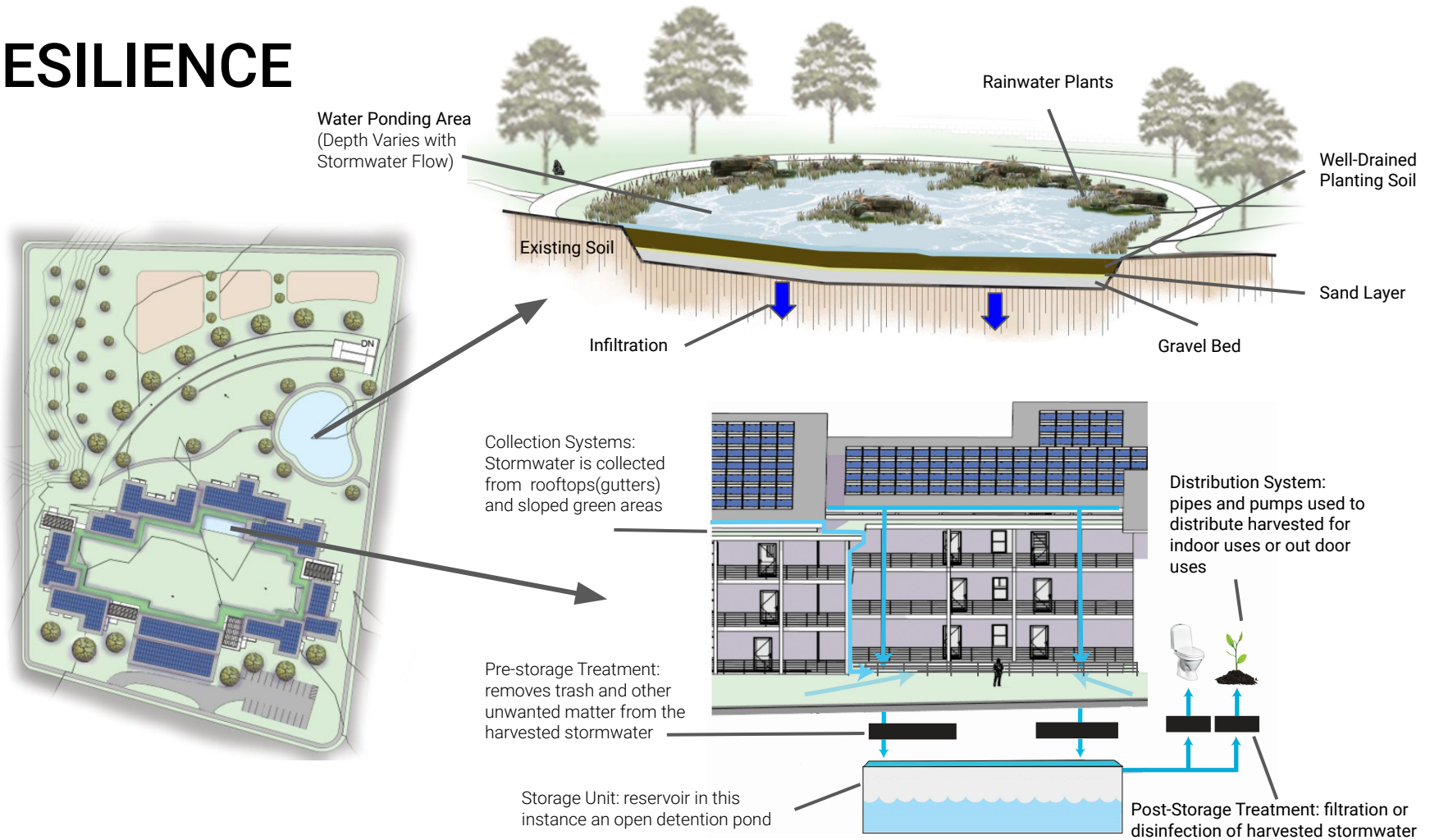


DIRTT VS. Conventional Power

Figures based on side-by-side cost analysis performed by RSMMeans



RESILIENCE

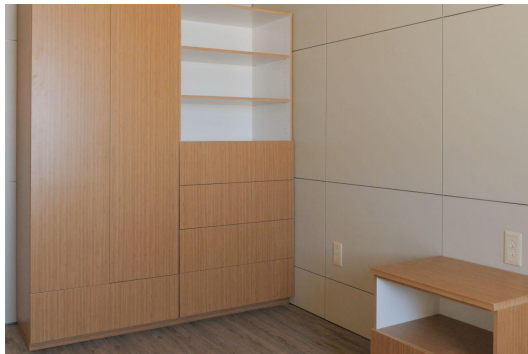


EMBODIED ENVIRONMENTAL IMPACT

DIRTT Kitchen Example



DIRTT Cabinetry Example



DIRTT Panel Section



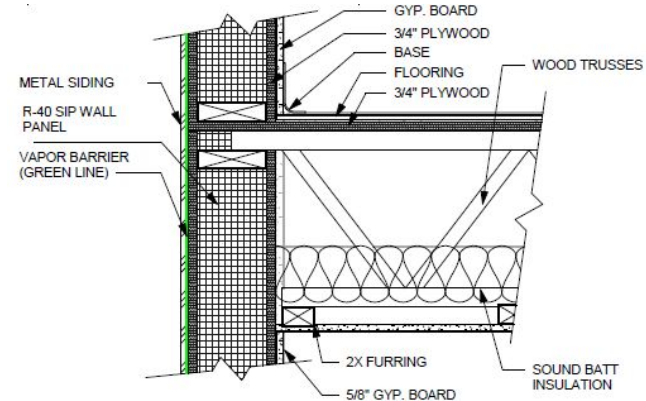
DIRTT Walls

- 95-97% Materials Purchased in North America
- Light-weight Aluminum Frame (High Recycled Content)
- 90-100% Pre-Consumer Recycled Content (Post-Industrial) Walls Tiles
- 80% Post-Consumer Recycled Cotton Denim Insulation

Metal Siding



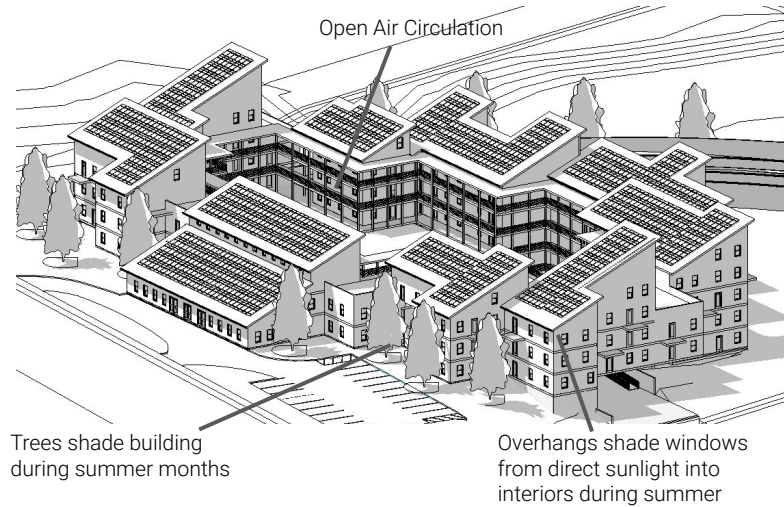
Prefabricated SIP Wall Panels



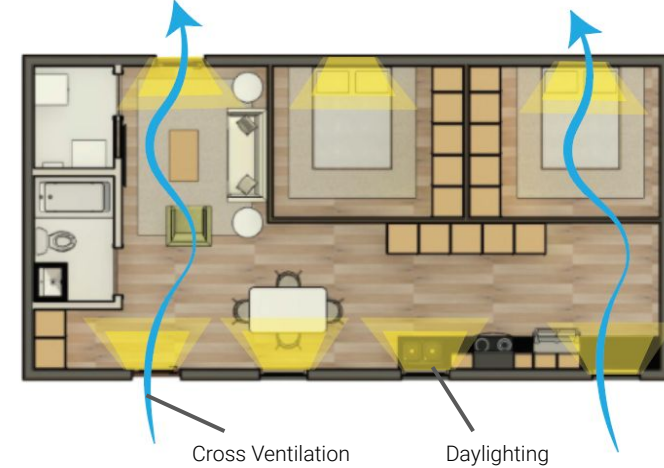
All Core Construction Materials can be obtained within a 60 mile radius (excluding DIRTT Walls)

INTEGRATED PERFORMANCE

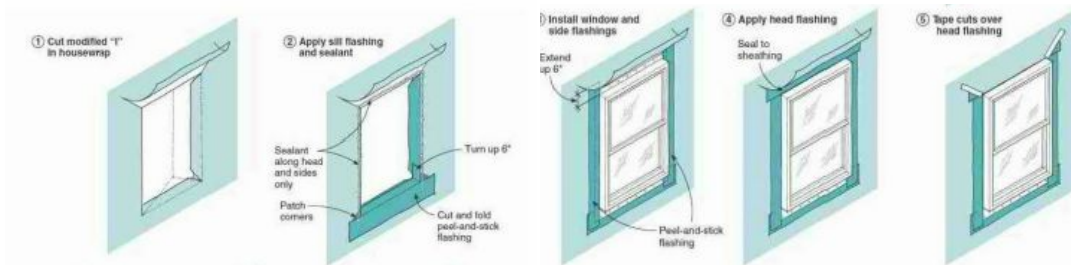
Passive Design Strategies



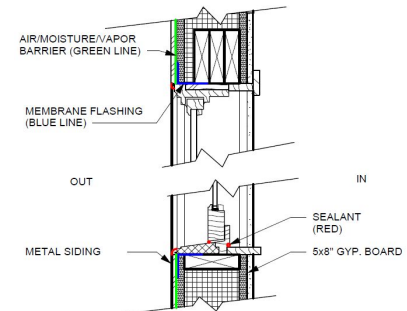
Interior Passive Design Strategies



Window Flashing Sequence



Exterior Envelope



INTEGRATED PERFORMANCE

Smart Technology



Honeywell Lyric WiFi Smart Thermostat

- Can be controlled by app
- Alerts to change filter
- Warns occupants of extreme indoor temperatures
- Intelligent comfort control
- Works with Amazon Alexa, Apple HomeKit, Cortana, and Google Assistant for Voice Controls
- 7-day flexible scheduling or location based temperature control



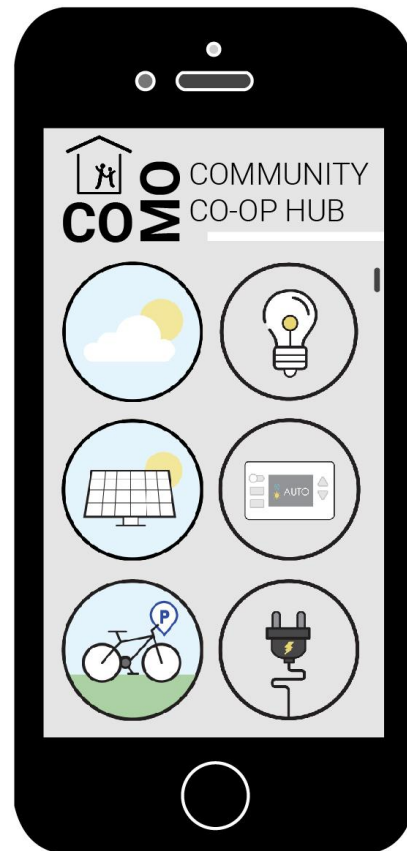
Haiku 52" Big Ass Fan

- Can be controlled by app
- Has a Fan Eco Mode (along with other special modes)
- 16 Dimmable Light Levels
- SenseMe Motion Sensor and Settings
- Includes Temperature and Humidity Sensors
- Works with Amazon Alexa, Google Assistant, and ecobee for Voice Controls



Halo RL4 SeleCCTable Downlight

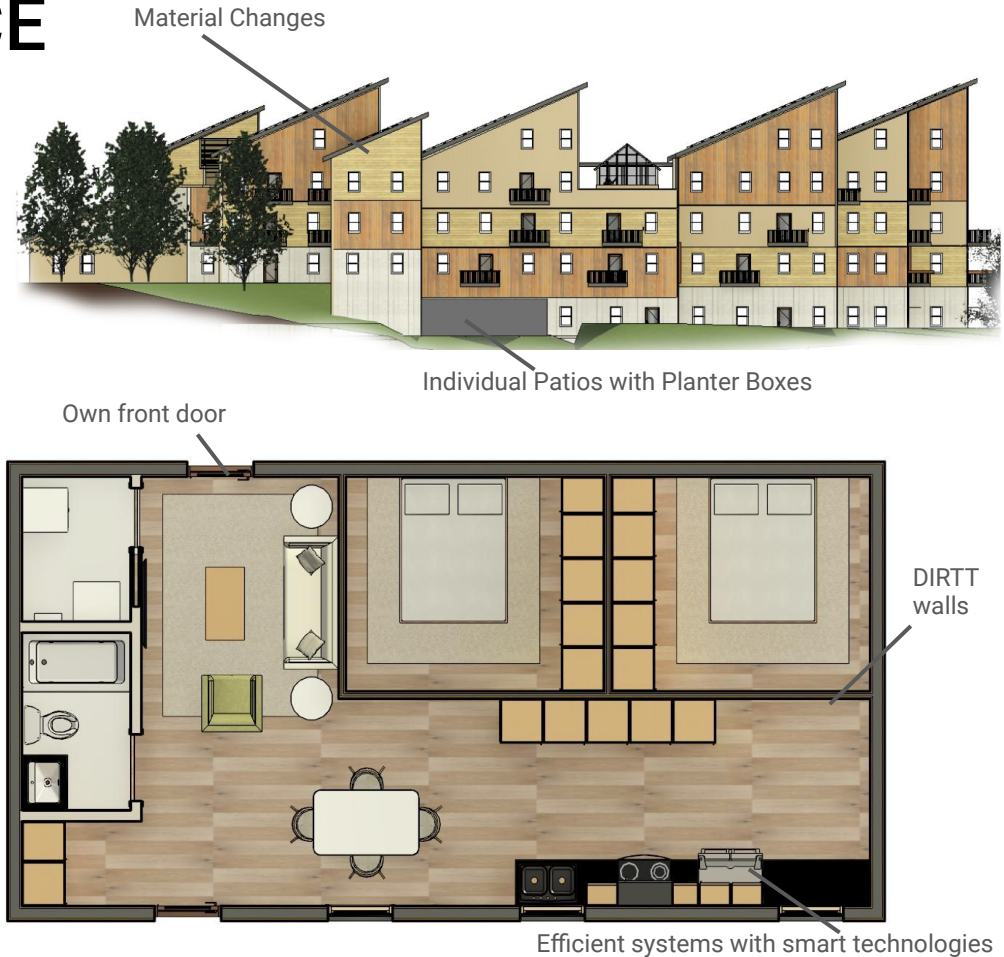
- Field-Selectable Color Temperatures LED Downlight
- 5 Selectable Color Temperatures: 2700K, 3000K, 3500K, 4000K, 5000K
- CRI: 90
- Phase-Dimming down to 5%



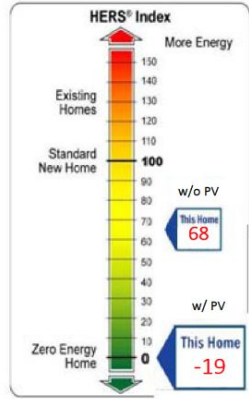
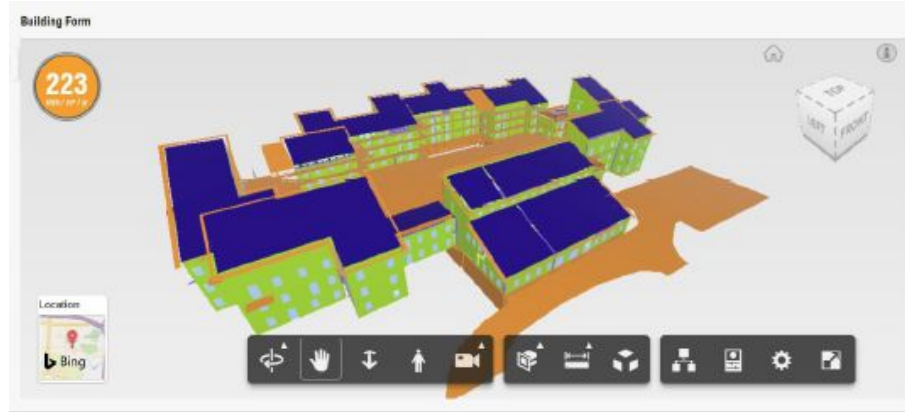
OCCUPANT EXPERIENCE

Education Opportunities through water collection systems, gardens, greenhouses, community center and pollinator pathway

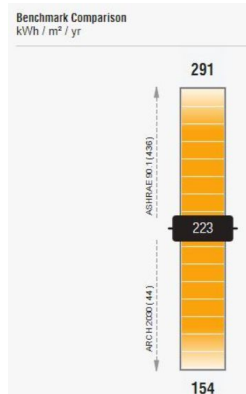
Co-Op allows everyone to have an invested interest in the building and this allows the residents to make choices about what happens in the building.



ENERGY PERFORMANCE



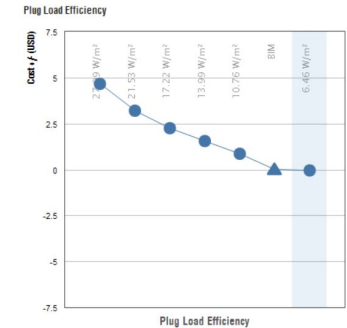
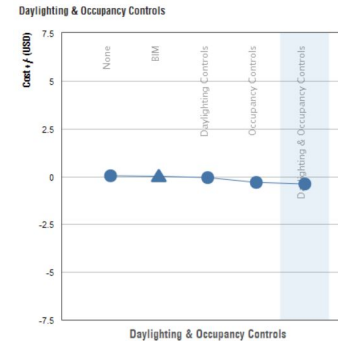
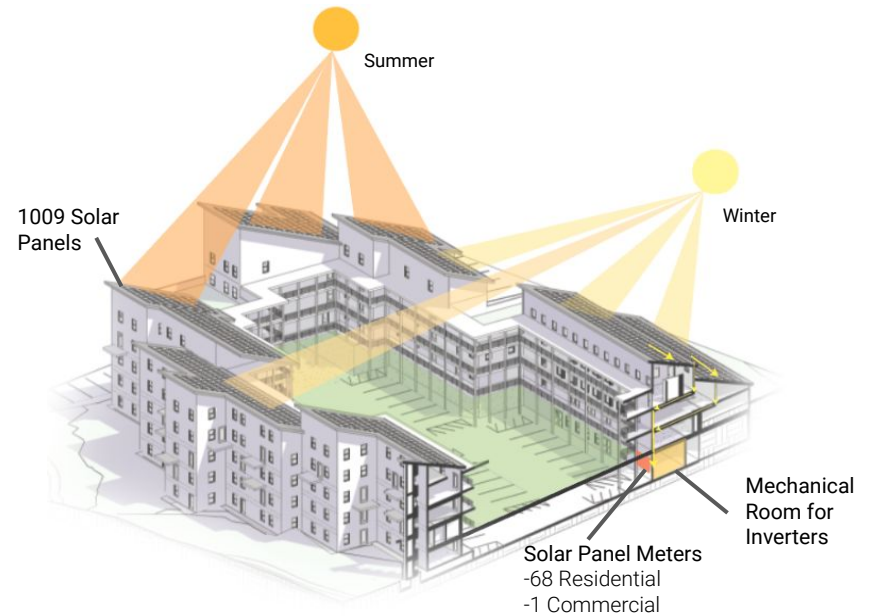
HERS Index for Building



EUI Rating



Solar Panel Model SIL - 330 NL





“Design that enhances the health, wealth,
and quality of life for residents.”

THANK YOU